Cancel Claim 25.

Amend Claim 26 as follows:

26. (Amended) A filtration device comprising 96 wells, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top of the filter, said well being formed of a plastic and said interlock being one or more skives.

Add new claim 27 as follows:

27. (New) A filtration device comprising at least one well, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top of the filter, said well being formed of a plastic and said interlock being one or more skives and wherein the at least one piece of filter are multiple pieces sequentially arranged in the well and sealed to the well by a skive formed between each layer of filter.

REMARKS

New Figure 11 has been added to the application in order to comply with the requirements of paragraph 1 of the office action. Support for Figure 11 is found in claim 25 and page 5, line 29.

No new matter is added to the application by the addition of the new figure required by the office action. If the proposed drawing is accepted, Applicant will submit a formal drawing for the file.

The color drawings have been objected to but would be acceptable once a petition under 37 CFR 1.84(a)(2) is granted. Applicant has made the petition, along with three (3) sets of color drawings, a black and white photocopy that accurately depicts what is shown in the color drawings and Applicant has inserted an amendment to the first paragraph of the drawings section as stated by the office action.

A copy with the marked changes to the text and claims are attached.

Claims 1- 6 have been rejected under 35 USC 103(a) as being obvious over Zermani (WO 00/66268) in view of DeSalvo (US 5,284,586). Applicants respectfully disagree.

The Zermani reference is not a proper reference under 35 USC 103(a) as it was published on November 9, 2000, after the priority date of the present invention. As such, the Zermani reference is believed not to be a proper 103(a) reference and cannot be relied upon to make the asserted combination of references.

If Zermani is deemed to be a proper 103(a) reference, the Applicants respectfully ask that the Examiner explain her rationale in detail.

Even if Zermani were to be deemed a proper 103(a) reference, which Applicants do not concede, its combination with DeSalvo is improper as there is no motivation for their combination. It is well established that there must be a motivation in the two or more cited references to suggest to one of ordinary skill in the art their combination.

Zermani at the sections cited in the Office Action relates to the use of a separate preformed O-ring 30 or alternatively, the formation "of a molten or liquid material cast into the undercut to seal the filter in place" (Page 8, line 21). In either embodiment mentioned by Zermani, the means forming the seal is not part of the inner wall but is a separate and distinct element deliberately inserted into the well. Likewise, the other embodiment of Zermani is to use thermal energy to heat bond the filter bottom surface to the surface of the well interior. This is not a mechanical means as is claimed in the present invention.

DeSalvo shows a method of forming a metal crimp seal around a metal screen in order to retain it in place. To do so, it makes a single cut of the metal housing to form a flap at an inward angle from the wall and then crimps it over to form a flat ring.

This is unlike the skive claimed in the present invention in which a continuous roll of inner wall material is formed from a portion of the wall made of plastic to lock the filter in place.

The reference is limited to a metal wall and the use of a simple crimp as the mechanical interlock and therefore fails to teach each and every element of the claim.

It would not have been obvious to one of ordinary skill in the art to have substituted the O-ring or separately formed molten or liquid sealing material of Zermani or the heat sealing of the bottom of the filter to the well of Zermani with the crimp of DeSalvo.

Applicants also note that Paragraphs 9-14 relate to claims that have not been subject to a specific rejection (only claims 1-6 have been rejected under the combination of Zermani and DeSalvo). If the rejection based on Paragraph 5 was meant to apply to the other claims, Applicants request that the present Office Action be withdrawn and a new one issued with the additional specific rejections.

Claim 1 is now considered by the Examiner to be a product by process claim. Applicants find no legitimate basis in claim 1 for making this assertion. To the contrary, the term "skive" in the claim is a noun and is a physical feature of the claim. It is not a function or the process by which the element is formed, that would be the verb "to skive" or "skiving", neither of which is used in the language of Claim 1.

Applicants believe the explanatory description of a skive and how one can be made in both the present specification and in the Applicants last response has been read into Claim 1, which is improper, just as it would for one to read the verb crimping into the crimp described in DeSalvo. It is clear what a skive is and it is a discrete physical feature. It is different than other mechanical interlocks such as crimps, O-rings, undercuts and the like. The use of the term skive is only to more fully define what type of interlock is being claimed in the present invention. Applicants added language to the term skive in Claim 1 in order to make it absolutely clear what a skive is. Applicants believe that the language while useful is apparently confusing to the Examiner and have deleted that language from Claim 1. Applicants request that the rejection of Claim 1 based upon the new and improper interpretation of Claim 1 be withdrawn.

Claims 2-4 have been rejected under 35 USC 103(a) as being obvious over Zermani (WO 00/66268) in view of DeSalvo (US 5,284,586) and further in view of Cohen et.al. (US 3,370,352). Applicants respectfully disagree.

The issue of the proper antecedent basis for the term "vertical center line " has been taken care of by amendment above.

The Zermani reference is not a proper reference under 35 USC 103(a) as it was published on November 9, 2000, after the priority date of the present invention. As such, the

Zermani reference is believed not to be a proper 103(a) reference and cannot be relied upon to make the asserted combination of references.

If Zermani is deemed to be a proper 103(a) reference, the Applicants respectfully ask that the Examiner explain her rationale in detail.

The combination of Zermani with DeSalvo coupled with Cohen et al fails to teach or suggest the present invention of claims 2-4.

There is no motivation for one to consider the combination of the three references absent the teachings of the present invention. As admitted in the Office Action the combination of Zermani and DeSalvo fails to teach at least apportion of the wall tapering inwardly as it progresses from the top to the bottom of the well. That is because Zermani relates to forming a heat sealed membrane in a straight well and DeSalvo relates to forming a filter in a straight walled well by a crimp.

Cohen et al relates to a gasketed system using a series of hooks to hold the two plates together and create the compression necessary to form the seal with the gaskets. It also shows a portion of its well being tapered (angle undefined) to form a funnel for facilitating the filling of the cavities.

Cohen et al doesn't add anything to the other two and in many ways is backward to them in using a compressive seal formed by gaskets. The function of the funnel shape has nothing to do with the sealing in Cohen et al and does not appear to overcome any problems encountered with either Zermani or DeSalvo. Further, one of ordinary skill in the art in viewing Zermani and DeSalvo would appreciate that the use of an inwardly tapering wall would not be helpful to the methods used in either of those reference to seal the filter in place and may in fact prevent it from being properly sealed, especially in the case of DeSalvo. As such, the cited art does not suggest a motivation for the combination nor does it suggest the present invention.

Applicants believes this reply is complete and conforms to the requirements of the Office Action. Applicants's attorney requests that the Examiner call him if it is believed that this reply is not in complete compliance with any of the Office Action's requirements.

Respectfully Submitted,

John Dana Hubbard
Attorney for Applicants
Reg. No. 30, 465

July 15, 2003
Millipore Corporation
290 Concord Road
Billerica, Massachusetts 01821
Tel.: (978) 715-1265
Fax: (978) 715-1382

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner of Patents, Washington D.C. 20231

On July 15, 2003 Kimberly Atwood
Signature
Kimberly Atwood
Typed name of person signing

VERSION with MARKINGS to SHOW CHANGES

In The Specification:

At page 2, at line 18, insert the following new paragraph as follows:

- - The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the U.S. Patent and Trademark Office upon request and payment of the necessary fee. - -

At page 2, at line 32 insert the following new paragraph as follows:

- -Figure 11 shows an alternative embodiment of the present invention in cross sectional view. - -

At Page 5,line 24 replace the following paragraph:

- -It is contemplated that the present invention would be useful for mechanically locking multiple layers of filters into a filtration device, such as a pre-filter and a filter, thereby lengthening the life of the device while eliminating the need for expensive welding equipment such as ultrasonic welders or the use of adhesives such as epoxies or thermal bonding technology. Alternatively multiple filters could be locked sequentially into a well separated by the height of the mechanical interlock formed between each layer of filter as shown in Figure 11. These may have simple open spaces between the layers of filter or the spaces may be filled with chromatography media, absorptive materials and the like. - -

In the Claims:

Claim 1 has amended as follows:

1). (Thrice Amended) A filtration device comprising at least one well, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top of the filter, said well being formed of a plastic and said interlock being one or more skives [formed continuously from at least a portion of an inner wall of the well and wherein the interlock remains attached to and as a portion of the inner wall].

Claim 3 has been amended as follows:

3. (Amended) The device of claim 1 wherein at least a portion of the inner wall is tapered inwardly as it progresses from the top of the well toward the bottom of the well and wherein the taper is from about 0 degrees toward [the] a vertical center line of the well to about 20 degrees toward the vertical center line of the well.

Claim 4 has been amended as follows:

4. (Amended) The device of claim 1 wherein at least a portion of the inner wall is tapered inwardly as it progress from the top of the well toward the bottom of the well and wherein the taper is about 7 degrees toward [the] a vertical center line of the well.

Claim 26 has been amended as follows:

26 (Amended) A filtration device comprising 96 wells, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top of the filter, said well being formed of a plastic and said interlock being one or more skives [formed continuously from at least a portion of an inner wall of the well and wherein the interlock remains attached to and as a portion of the inner wall].

New Claim 27 has been added as follows:

27. (New) A filtration device comprising at least one well, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top

of the filter, said well being formed of a plastic and said interlock being one or more skives and wherein the at least one piece of filter are multiple pieces sequentially arranged in the well and sealed to the well by a skive formed between each layer of filter.